

Changing epidemiology of pancreatic cancer in England: An analysis of the national cancer registration data by age group and sex, 1985-2017

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Background

Pancreatic cancer is the 10th most common cancer in the UK, with around 10,300 new cases and 9,200 deaths in 2017. About 37% of the cases of pancreatic cancer in the UK are attributed to modifiable risk factors (i.e. smoking, overweight/obesity, alcohol consumption). The objective of this study was to determine the trends in incidence of pancreatic cancer in England.

Methods

Population-based national cancer registration data for England, 1985-2017 (obtained from Public Health England Office for Data Release), were used to calculate average annual incidence rates of pancreatic cancer (ICD-10 code: C25) by two age categories (0-49 and 50+ years) and sex. Index of Multiple Deprivation (IMD) quintiles (2015-17) were examined to determine the social gradient of the disease.

Results

During the 33-year period, a total of 216,113 cases of pancreatic cancer were registered in England. In young people (aged 0-49 years), the average annual incidence rate (per 100,000) in males increased from 0.84 in 1985-89 to 1.01 in 2015-17 (+20.4%), and in females from 0.57 in 1985-89 to 0.85 in 2015-17 (+49.1%). In the older age group (aged 50+ years), the rate in males increased from 40.7 in 1985-89 to 44.7 in 2015-17 (+9.9%), and in females from 34.9 in 1985-89 to 38.7 in 2015-17 (+10.9%). There was also a dichotomy between the two age-groups with regard to the social gradient. In the young age group, the highest proportion (24%) of cases occurred in people from the most deprived areas, whereas in the older age-group the highest proportion (22%) occurred in people from the least deprived areas.

Conclusion

There has been an unexpected increase in the incidence of pancreatic cancer in young people, particularly females, in England over the last four decades; and in recent years a relatively increased proportion of cases occurred in young people from deprived communities.

Word count: 300 (background-conclusion).

Impact statement

Studies are needed to determine the impact of smoking, overweight/obesity, excessive alcohol consumption in young people from deprived communities.